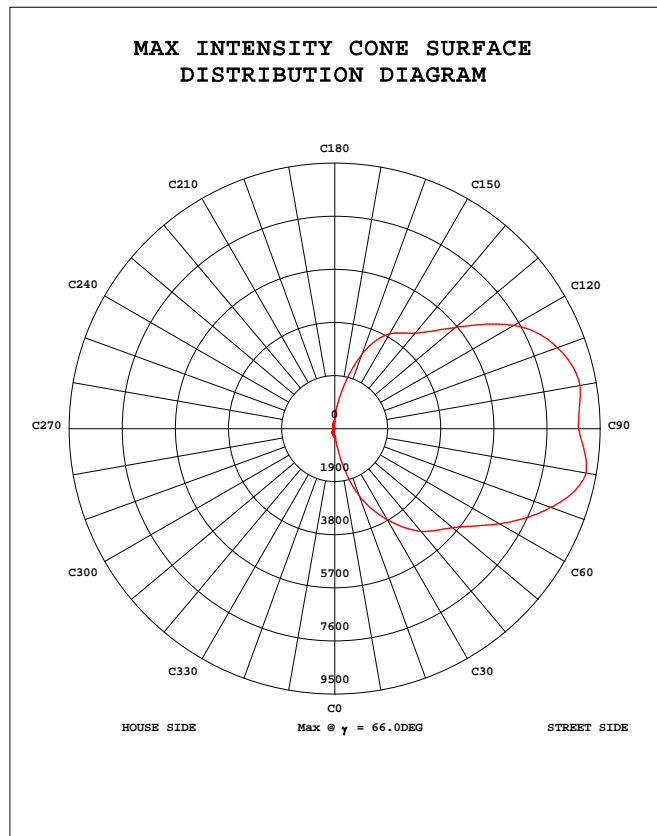
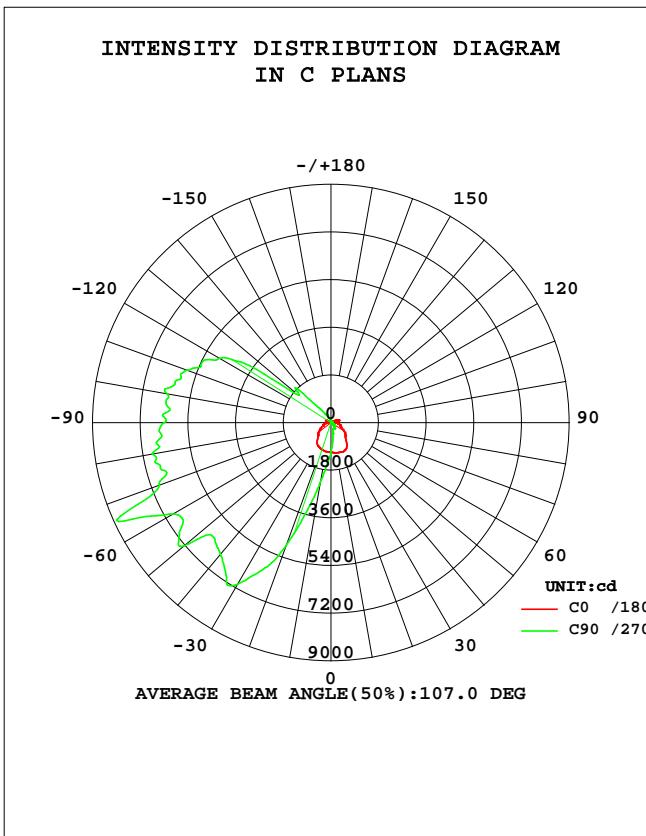


STREETLIGHT PHOTOMETRIC TEST REPORT

Test:U:127.5V I:3.336A P:383.5W PF:0.9010 Lamp Flux:33100x1 lm		
NAME: GSM727 MH-400W	TYPE:	WEIGHT:
DIMENSION:	SPECIFICATION:MH-400W	SERIAL No.:QC-161
MANUFACTURER: ESCO LIGHTING	SURFACE:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 57.11 lm/W
MODEL	MH400W ED28E39	I _{max} (cd)	9128	η street_up(%)	20.9	
NOMINAL POWER(W)	400	EFFICIENCY(%)	66.2	η street_down(%)	42.5	
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	21901	η house_up(%)	0.6	
NOMINAL FLUX(lm)	33100	MAXIMUM @(C,γ)	80,66.0	η house_down(%)	2.2	
LAMPS INSIDE	1	η up(%)	21.5	76 FLASHAREA(m2)	0.0010	
TEST VOLTAGE(V)	120	η down(%)	44.6	SLI	18.267	



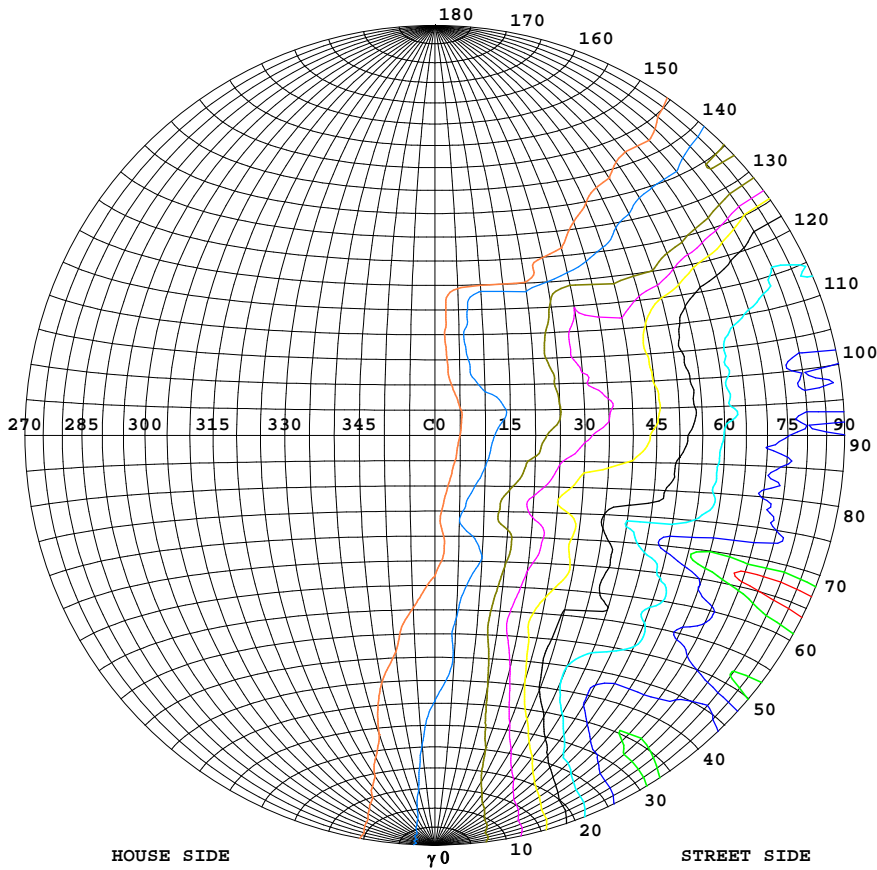
C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:WYQ
 Test Date:2009-12-02

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R3000(2M3D) SYSTEM V1.0.203
 Humidity:65.0%
 Test Distance:15.000m [K=1.1548]
 Remarks: ADVANCE MH400W ballast,
 ED28E39 MH400W lamp.

Note: SLI:Specific Luminaire Index

STREETLIGHT ISOCANDELA DIAGRAM

Test:U:127.5V I:3.336A P:383.5W PF:0.9010 Lamp Flux:33100x1 lm		
NAME: GSM727 MH-400W	TYPE:	WEIGHT:
DIMENSION:	SPECIFICATION:MH-400W	SERIAL No.:QC-161
MANUFACTURER: ESCO LIGHTING	SURFACE:	PROTECTION ANGLE:



Classification:

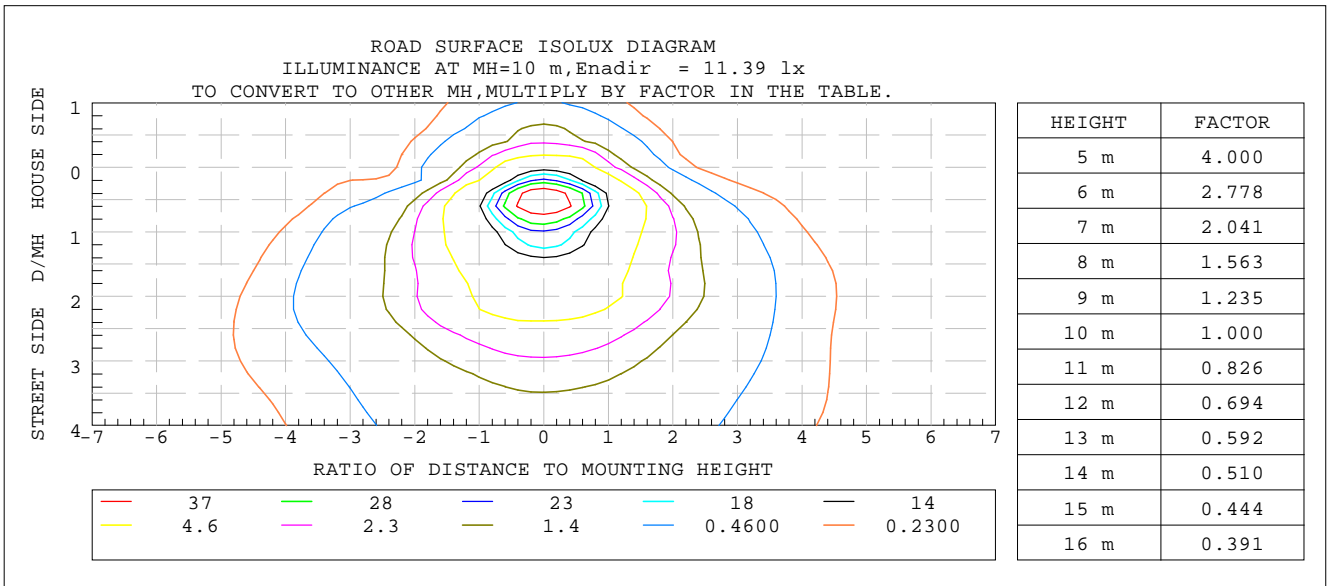
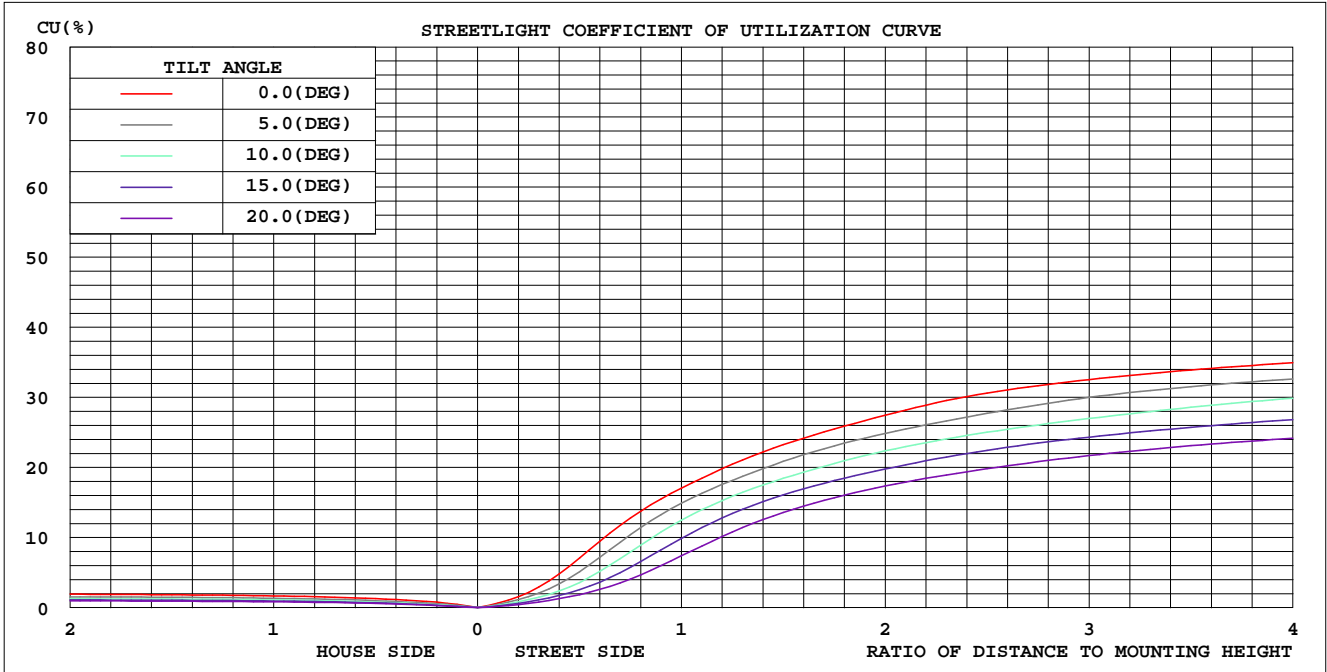
IES:Type IV - Very Short
 CIE:Broad - Intermediate
 IES:None cut-off
 CIE:Non-cut-off
 Max.At80:211.0cd/klm
 Max.At90:200.5cd/klm
 Max.80-90:212.5cd/klm

ISOCANDELA DIAGRAM	
UNIT	cd
I _{max} =100%	9128
90%	8216
80%	7303
70%	6390
60%	5477
50%	4564
40%	3651
30%	2739
20%	1826
10%	913
5%	456

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:WYQ
 Test Date:2009-12-02

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R3000(2M3D) SYSTEM V1.0.203
 Humidity:65.0%
 Test Distance:15.000m [K=1.1548]
 Remarks: ADVANCE MH400W ballast,
 ED28E39 MH400W lamp.

COEFFICIENT OF UTILIZATION CURVE
AND ISOLUX DIAGRAM



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators: WYQ
 Test Date: 2009-12-02

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R3000(2M3D) SYSTEM V1.0.203
 Humidity: 65.0%
 Test Distance: 15.000m [K=1.1548]
 Remarks: ADVANCE MH400W ballast,
 ED28E39 MH400W lamp.

ZONAL FLUX DIAGRAM

Test:U:127.5V I:3.336A P:383.5W PF:0.9010 Lamp Flux:33100x1 lm		
NAME: GSM727 MH-400W	TYPE:	WEIGHT:
DIMENSION:	SPECIFICATION:MH-400W	SERIAL No.:QC-161
MANUFACTURER: ESCO LIGHTING	SURFACE:	PROTECTION ANGLE:

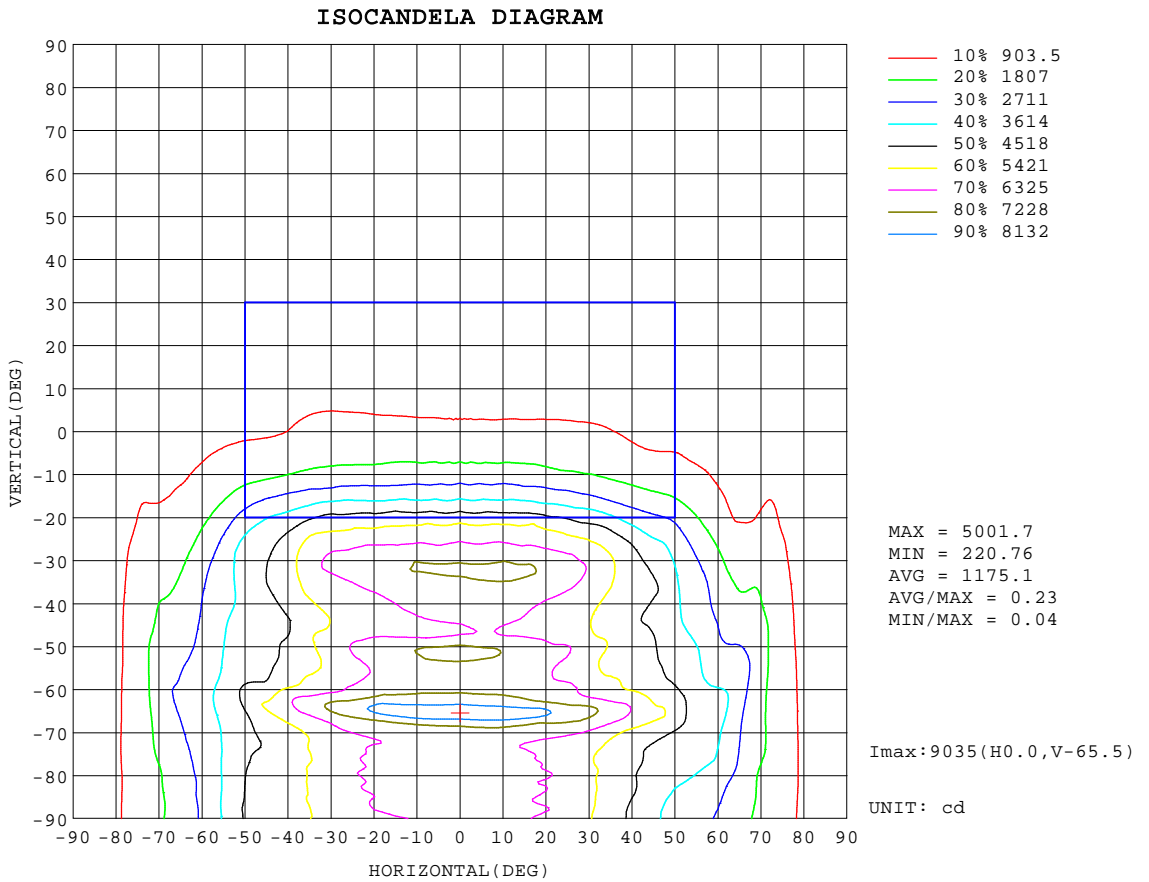
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
5	1121	1402	1544	1404	1142	860.8	766.1	852.3	0- 5	27.04	27.04	0.12,0.08
10	1115	1774	2243	1803	1157	640.5	460.2	601.1	5- 10	83.93	111.0	0.51,0.34
15	1094	2385	3384	2373	1173	468.4	345.7	441.2	10- 15	158.5	269.5	1.23,0.81
20	1076	3158	4918	3209	1187	378.9	257.4	352.5	15- 20	267.8	537.3	2.45,1.62
25	1043	4189	6137	4329	1182	290.0	269.7	282.0	20- 25	422.3	959.6	4.38,2.9
30	1005	5224	7031	5343	1151	260.2	266.4	265.1	25- 30	599.5	1559	7.12,4.71
35	918.7	5926	6934	6207	1064	245.7	228.7	251.5	30- 35	783.7	2343	10.7,7.08
40	785.8	6424	6496	6553	905.1	231.2	167.0	238.0	35- 40	908.3	3251	14.8,9.82
45	692.1	6065	6217	6072	781.1	198.5	152.2	202.0	40- 45	977.8	4229	19.3,12.8
50	647.5	5373	7250	5490	717.3	162.1	139.5	171.1	45- 50	1027	5255	24,15.9
55	542.8	5028	6890	5128	636.0	143.6	106.7	169.2	50- 55	1121	6376	29.1,19.3
60	478.5	5003	6909	4857	529.2	132.5	95.30	154.3	55- 60	1133	7509	34.3,22.7
65	376.6	5161	8850	5003	413.5	112.4	74.99	129.2	60- 65	1206	8715	39.8,26.3
70	316.2	5827	6914	5773	369.5	94.63	43.88	112.4	65- 70	1315	10030	45.8,30.3
75	307.5	5202	6671	4915	362.3	85.25	44.93	110.1	70- 75	1241	11271	51.5,34.1
80	230.0	4417	6848	4782	276.0	97.73	46.21	127.7	75- 80	1211	12482	57,37.7
85	182.9	4146	6430	4848	219.0	96.05	46.75	122.5	80- 85	1174	13655	62.4,41.3
90	158.7	3791	6305	4847	207.0	87.56	45.63	109.3	85- 90	1122	14777	67.5,44.6
95	152.9	3534	6119	4845	240.7	87.75	47.05	107.3	90- 95	1081	15859	72.4,47.9
100	175.6	3670	6281	4918	269.8	92.35	47.63	105.4	95-100	1080	16938	77.3,51.2
105	189.6	3751	6082	4843	304.7	95.80	49.71	102.8	100-105	1080	18018	82.3,54.4
110	217.2	3668	5807	4518	305.1	88.72	49.35	98.56	105-110	1043	19061	87,57.6
115	221.8	2901	5379	3420	256.1	68.64	54.76	88.01	110-115	917.4	19979	91.2,60.4
120	166.2	1716	4871	1965	151.5	59.50	51.61	69.47	115-120	721.4	20700	94.5,62.5
125	102.7	1121	3756	1400	124.2	59.64	47.34	66.19	120-125	469.9	21170	96.7,64
130	64.23	831.7	1639	1211	101.7	58.25	48.34	64.77	125-130	268.7	21439	97.9,64.8
135	85.53	536.7	1832	656.5	101.4	50.28	46.77	56.13	130-135	192.3	21631	98.8,65.4
140	61.60	378.2	804.3	439.4	83.50	37.11	46.35	39.45	135-140	113.4	21744	99.3,65.7
145	33.58	283.1	475.4	320.1	37.67	27.31	45.84	39.80	140-145	62.62	21807	99.6,65.9
150	42.71	150.9	348.8	193.5	27.39	23.48	38.60	40.04	145-150	39.38	21846	99.8,66
155	31.15	58.47	315.2	73.07	32.09	19.44	31.50	39.08	150-155	27.08	21873	99.9,66.1
160	21.48	75.91	96.02	62.41	19.61	15.99	30.23	35.26	155-160	14.06	21887	99.9,66.1
165	13.54	63.61	102.5	77.83	11.56	13.53	23.95	30.01	160-165	6.752	21894	100,66.1
170	9.320	27.33	84.07	47.47	9.214	10.79	17.66	26.81	165-170	4.827	21899	100,66.2
175	9.141	7.378	23.50	25.93	10.09	8.957	10.61	17.67	170-175	1.655	21901	100,66.2
180	6.914	5.485	4.216	9.367	7.538	5.999	5.418	9.547	175-180	0.2636	21901	100,66.2
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:WYQ
 Test Date:2009-12-02

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R3000(2M3D) SYSTEM V1.0.203
 Humidity:65.0%
 Test Distance:15.000m [K=1.1548]
 Remarks: ADVANCE MH400W ballast,
 ED28E39 MH400W lamp.

ISOCANDELA DIAGRAM

Test:U:127.5V I:3.336A P:383.5W PF:0.9010 Lamp Flux:33100x1 lm		
NAME: GSM727 MH-400W	TYPE:	WEIGHT:
DIMENSION:	SPECIFICATION:MH-400W	SERIAL No.:QC-161
MANUFACTURER: ESCO LIGHTING	SURFACE:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators: WYQ
 Test Date: 2009-12-02

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-R3000(2M3D) SYSTEM V1.0.203
 Humidity: 65.0%
 Test Distance: 15.000m [K=1.1548]
 Remarks: ADVANCE MH400W ballast,
 ED28E39 MH400W lamp.

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:127.5V I:3.336A P:383.5W PF:0.9010 Lamp Flux:33100x1 lm		
NAME: GSM727 MH-400W	TYPE:	WEIGHT:
DIMENSION:	SPECIFICATION:MH-400W	SERIAL No.:QC-161
MANUFACTURER: ESCO LIGHTING	SURFACE:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
0	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135
5	1121	1192	1261	1318	1381	1423	1475	1508	1540	1544	1535	1511	1474	1424	1383	1324	1265	1205	1142
10	1115	1256	1390	1530	1695	1851	2014	2141	2226	2243	2218	2133	2026	1880	1724	1558	1412	1279	1157
15	1094	1306	1538	1827	2191	2576	2877	3164	3335	3384	3324	3150	2882	2551	2190	1874	1591	1357	1173
20	1076	1354	1699	2174	2811	3497	4114	4530	4814	4918	4820	4573	4106	3543	2868	2234	1747	1429	1187
25	1043	1357	1811	2623	3636	4731	5543	5932	6132	6137	6096	5845	5521	4832	3816	2823	1966	1461	1182
30	1005	1352	1987	3197	4708	5729	6355	6757	7133	7031	7170	6836	6419	5689	4989	3647	2308	1485	1151
35	919	1279	2215	3947	5442	6401	7345	7368	7354	6934	7061	6986	7261	6621	5784	4546	2746	1505	1064
40	786	1177	2515	4586	6117	6726	6916	6616	6798	6496	6643	6412	6592	6635	6468	5227	3175	1497	905
45	692	1157	2831	4873	6063	6067	6215	6272	6543	6217	6373	6149	6104	5878	6270	5308	3587	1585	781
50	648	1272	3183	4713	5269	5476	5895	6330	7084	7250	7117	6383	6010	5447	5532	4970	3860	1737	717
55	543	1216	3256	4582	4702	5348	6645	6697	7089	6890	7078	6760	6574	5557	4690	4473	3833	1656	636
60	479	1090	2923	4016	4805	5197	6181	6476	6916	6909	7081	6533	6200	5201	4506	3995	3404	1452	529
65	377	919	2627	3710	4823	5492	6528	7547	8789	8850	8827	8236	6814	5529	4466	3930	2925	1271	413
70	316	1067	2338	3838	4947	6691	7316	6823	7153	6914	7023	6698	6682	6509	5022	3723	2529	1253	370
75	308	1347	2874	3898	5245	5160	5824	6093	6743	6671	6814	6435	5933	5140	4685	3679	2529	1485	362
80	230	1072	2395	3994	4178	4652	5714	6355	6986	6848	6949	6507	6010	5040	4518	3199	2586	1167	276
85	183	855	1991	3299	3710	4574	5657	6190	6703	6430	6631	6252	5880	5072	4619	2904	1995	885	219
90	159	756	1582	2620	3268	4305	5558	6141	6635	6305	6455	6121	5791	5046	4643	2795	1683	794	207
95	153	731	1158	2425	2979	4079	5436	5964	6298	6119	6315	6212	6008	5093	4592	2738	1576	958	241
100	176	1011	1220	2681	3132	4198	5395	6137	6560	6281	6454	6216	5957	5059	4775	2625	1789	1276	270
105	190	1245	1380	3039	3169	4321	5446	5832	6386	6082	6192	5889	5865	5006	4676	2555	2251	1737	305
110	217	1372	1271	3050	3026	4298	5185	5470	6083	5807	5939	5543	5224	4642	4393	2249	2388	1803	305
115	222	1203	1072	2683	2211	3579	4779	5038	5631	5379	5443	5119	4681	3961	2869	1723	2032	1409	256
120	166	397	476	1332	1614	1816	3502	4291	5018	4871	4913	4610	3973	2329	1593	1160	830	342	151
125	103	223	369	530	998	1242	1669	2379	3730	3756	3787	2864	2047	1404	1395	772	376	276	124
130	64.2	210	188	381	609	1051	1496	1521	1702	1639	1710	1619	1564	1484	931	494	298	277	102
135	85.5	230	182	289	451	621	877	1068	1696	1832	1857	1119	1180	760	551	370	186	283	101
140	61.6	134	158	150	350	406	581	579	738	804	830	619	596	486	391	248	140	243	83.5
145	33.6	66.9	175	96.0	250	316	369	315	440	475	497	399	330	333	307	124	134	122	37.7
150	42.7	67.1	163	146	102	199	255	268	335	349	365	320	263	222	164	89.1	197	107	27.4
155	31.1	38.0	95.9	132	59.2	57.8	127	199	302	315	324	274	191	93.7	52.0	127	153	96.3	32.1
160	21.5	23.5	47.0	65.0	84.8	67.1	33.6	42.7	98.9	96.0	112	81.3	51.4	45.0	80.2	95.5	87.4	57.7	19.6
165	13.5	13.3	20.1	29.9	52.3	74.7	107	103	98.9	103	97.9	101	103	88.3	67.2	53.2	47.3	35.9	11.6
170	9.32	9.05	8.08	12.6	23.7	30.9	51.8	64.0	87.9	84.1	92.6	77.8	73.3	52.7	42.1	33.4	31.2	26.0	9.21
175	9.14	8.45	8.94	6.46	7.28	7.47	14.9	16.8	23.3	23.5	27.3	25.8	26.4	24.0	27.9	18.6	20.6	22.1	10.1
180	6.91	7.46	6.17	6.52	4.79	6.17	5.05	5.48	4.82	4.22	5.17	5.71	6.80	8.98	9.76	10.4	11.3	11.6	7.54

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:WYQ
 Test Date:2009-12-02

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R3000(2M3D) SYSTEM V1.0.203
 Humidity:65.0%
 Test Distance:15.000m [K=1.1548]
 Remarks: ADVANCE MH400W ballast,
 ED28E39 MH400W lamp.

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:127.5V I:3.336A P:383.5W PF:0.9010 Lamp Flux:33100x1 lm		
NAME: GSM727 MH-400W	TYPE:	WEIGHT:
DIMENSION:	SPECIFICATION:MH-400W	SERIAL No.:QC-161
MANUFACTURER: ESCO LIGHTING	SURFACE:	PROTECTION ANGLE:

Table--2

UNIT: cd

C(DEG) γ (DEG)	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350		
0	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135	1135		
5	1062	997	938	884	838	809	786	771	766	770	786	803	832	873	925	985	1051		
10	1008	887	789	683	599	513	479	469	460	467	469	492	561	642	755	858	983		
15	958	797	632	495	442	408	376	353	346	351	368	396	423	460	563	733	909		
20	917	690	502	418	340	286	260	260	257	266	268	286	323	383	444	605	849		
25	885	603	434	318	262	256	255	269	270	278	268	275	268	296	378	493	788		
30	845	534	358	269	251	255	255	270	266	273	263	268	262	268	308	446	714		
35	766	477	303	252	240	249	240	235	229	233	241	254	251	252	269	397	641		
40	633	407	276	232	230	210	185	171	167	171	187	213	238	238	253	353	552		
45	506	340	247	209	188	156	137	147	152	155	146	163	189	216	236	317	469		
50	431	293	215	180	145	123	127	135	140	141	146	147	154	188	221	288	422		
55	367	260	188	162	126	107	98.8	101	107	112	105	124	152	187	200	267	376		
60	316	227	174	155	110	80.8	74.1	89.6	95.3	94.0	88.2	91.3	126	183	204	242	335		
65	261	190	162	136	88.9	62.6	62.7	70.6	75.0	73.8	69.4	69.7	99.4	160	194	210	285		
70	200	157	141	114	75.6	45.9	36.6	42.2	43.9	46.1	43.4	48.8	86.4	139	173	186	306		
75	159	133	124	105	66.3	42.8	37.7	43.8	44.9	46.2	48.1	47.7	80.4	140	160	161	292		
80	134	121	121	129	66.8	42.4	37.2	44.0	46.2	47.3	46.4	50.2	84.3	172	166	150	158		
85	115	96.4	112	125	67.6	42.3	37.3	43.5	46.8	47.7	43.5	50.5	81.6	164	154	130	137		
90	109	77.9	102	113	62.4	43.9	38.5	45.9	45.6	47.9	45.0	50.3	75.3	144	138	104	130		
95	115	62.5	108	113	63.0	45.7	41.0	45.7	47.1	48.9	45.7	51.1	74.6	141	138	69.8	133		
100	119	59.3	111	118	67.6	48.6	41.5	47.6	47.6	50.5	46.3	52.1	73.2	138	137	59.8	135		
105	122	60.9	115	123	68.9	51.3	43.8	47.9	49.7	50.4	47.9	52.0	70.5	136	139	60.1	131		
110	129	57.0	110	113	65.2	51.9	46.4	50.0	49.3	49.8	48.7	51.7	67.9	130	138	59.3	127		
115	115	45.1	92.5	79.6	57.9	48.5	47.5	53.6	54.8	54.5	53.0	53.1	68.0	108	127	53.9	122		
120	73.4	35.8	78.5	65.9	53.2	45.8	44.4	49.6	51.6	54.6	51.3	54.6	61.4	77.7	102	45.7	88.2		
125	64.4	39.4	76.3	66.7	52.7	44.4	44.1	46.8	47.3	48.7	46.1	47.8	55.7	76.9	98.7	60.0	81.8		
130	73.8	54.0	55.6	64.5	52.1	43.2	42.6	48.0	48.3	49.8	45.8	43.9	52.7	77.1	72.6	83.7	88.7		
135	72.9	52.1	28.2	51.2	49.4	45.5	44.6	46.4	46.8	47.3	40.9	39.3	49.9	62.5	37.6	80.9	88.6		
140	62.9	41.9	21.7	30.7	43.4	42.6	46.1	47.6	46.4	41.8	36.4	36.6	43.6	35.2	41.0	49.8	61.3		
145	29.5	22.8	25.2	24.2	30.4	38.3	44.5	48.7	45.8	38.9	34.9	35.4	34.0	45.7	58.5	60.6	42.7		
150	25.4	31.0	30.3	24.3	22.7	30.1	39.2	44.7	38.6	38.0	43.9	34.5	35.7	44.5	55.1	61.4	51.2		
155	24.8	25.6	22.2	19.3	19.6	24.3	31.7	35.0	31.5	36.1	35.4	33.7	35.3	42.9	45.9	46.5	46.5		
160	16.1	16.7	16.1	15.8	16.2	19.0	22.7	25.4	30.2	31.6	30.0	31.9	34.5	36.1	37.8	35.1	38.3		
165	10.4	11.8	11.2	12.5	14.5	15.2	14.9	18.8	23.9	25.0	26.5	29.9	30.2	29.8	31.1	29.5	28.5		
170	8.22	8.33	8.81	10.2	11.4	11.3	12.1	13.9	17.7	18.5	21.9	24.6	26.5	27.2	26.3	26.0	24.9		
175	10.6	8.27	7.80	8.20	9.70	8.64	8.81	9.82	10.6	10.7	14.0	14.8	17.4	17.9	19.2	17.7	19.6		
180	6.88	6.74	6.30	6.29	5.72	5.91	14.0	5.47	5.42	5.99	11.5	7.72	9.57	9.52	10.0	11.3	12.7		

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:WYQ
 Test Date:2009-12-02

γ Range: 0 - 180DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-R3000(2M3D) SYSTEM V1.0.203
 Humidity:65.0%
 Test Distance:15.000m [K=1.1548]
 Remarks: ADVANCE MH400W ballast,
 ED28E39 MH400W lamp.